

# DESIGN STUDIO

## Course Outline

### **Course Overview**

Design Studio is meant to serve as a culminating experience that allows students the opportunity to put into practice the skills and knowledge gained in previous courses. The studio environment individualizes each student's education in architecture and design so that their talents, needs and interests relative to architecture are addressed and fostered. Students work independently on projects while the instructor facilitates and directs learning through individual conferences and critiques. Design Studio projects and areas of study are determined by individual student interest in consultation with the instructor.

### **SELF-DIRECTED LEARNING MODEL**

Design Studio courses employ the Self-Directed Learning Model and are offered to broaden the student's education in ways not normally available through the traditional curriculum. Design Studio courses can be more demanding than other courses since the student must be self-motivated to explore an area of study with limited direction from the instructor.

Students are responsible for;

- Creating a Self-Directed Learning Plan with the guidance of the instructor,
- Maintaining a daily journal/reflection of studio activities and progress,
- Completing periodic self-assessments,
- Initiating and guiding both formal and informal critiques,
- Producing a tangible product in accordance with the Self-Directed Learning Plan,
- Presenting their work to a group,
- Completing required supplemental coursework as specified in the syllabus.

### **Course Requirements** Prerequisite: **Interior Design and Design-Build**

### **Course Competencies**

#### **COURSE SPECIFIC GOALS**

1. Demonstrate and apply self-management skills by adhering to regulations, being responsible, and following through on commitments.
2. Demonstrate the skills associated with self-directed learning; identify and assess learning tasks, evaluate their own knowledge and skills, plan their approach to learning, monitor their progress and adjust strategies as needed.
3. Other... as determined by selected activity and specified in the students Self-Directed Learning Plan.

#### **PROGRAM CORE GOALS**

1. Use real-world digital and other research tools to access, evaluate and effectively apply information appropriate for authentic tasks.
2. Work independently and collaboratively to solve problems and accomplish goals.
3. Communicate information clearly and effectively using a variety of tools/media in varied contexts for a variety of purposes.
4. Demonstrate innovation, flexibility and adaptability in thinking patterns, work habits, and working/learning conditions.
5. Effectively apply the analysis, synthesis, and evaluative processes that enable productive problem solving.
6. Value and demonstrate personal responsibility, character, cultural understanding, and ethical behavior.
7. Understand, solve and communicate design ideas for Architecture/Engineering problems using sketches, scale drawings, CAD, models and prototypes.

#### **STATE COMPETENCIES - DRAFTING & DESIGN TECHNOLOGY**

#### **Units of Study**

Established based on student's Self-Directed Learning Plan.

#### **Grading Practices**

##### **Summative Assessment Policy (for end-of-unit tests, essays, and projects):**

Project Based or as specified by the students Self-Directed Learning Plan

##### **Late Work and Missing Work Policy:**

Late work is not accepted without prior consent of the instructor, except in the event of an excused absence(s).

##### **21st Century Skills (see [Developing 21st Century Skills at PHS](#)):**

Students are assessed and provided feedback on all 21st Century Skills.

##### **Other:**

Design Studio may be taken more than once for those students who want to continue to refine and expand their skills in architectural design.

The following grading standards are used at PHS

<b>Formative assignments are weighted as no more than 20% of your overall grade</b> <ul style="list-style-type: none"> <li>● Quizzes</li> <li>● Homework</li> </ul>	<b>Summative Assessments are weighted at least 80% of your overall grade</b> <ul style="list-style-type: none"> <li>● End of unit tests</li> <li>● End of unit essays and projects</li> </ul>
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• Classwork	
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# MAKERSPACE Wood

## Course Outline

### **Course Overview**

The MakerSpace Wood course is designed to expose students to general woodworking practices and entrepreneurial concepts that serve as foundational knowledge and skills in the areas of Design-Build, Construction and Manufacturing. Emphasis is placed on acquiring skills in the safe use of the tools, machines and processes to manufacture wood products. In each class students will develop a business enterprise to design, manufacture and sell a wood product(s).

### **Course Requirements** None

### **Course Competencies**

#### **COURSE SPECIFIC GOALS**

1. Understand and create working drawings used to create wood-based products.
2. Become familiar with the use and operation of a variety of hand tools, portable power tools and machines used to process wood.
3. Demonstrate personal and shop safety including safe operation of woodworking tools and machines and the handling of materials.
4. Develop a *Plan of Procedure* and *Bill of Materials* to construct a wood-based product.
5. Discuss the value of product analysis, selection and costing to a Design-Build/Manufacturing enterprise.
6. Discuss business resources; physical plant/equipment, labor and capital in relation to a Design-Build/ Manufacturing enterprise.
7. Demonstrate the ability to work effectively and respectfully with diverse teams to accomplish a common goal.

#### **PROGRAM CORE GOALS**

1. Use real-world digital and other research tools to access, evaluate and effectively apply information appropriate for authentic tasks.
2. Work independently and collaboratively to solve problems and accomplish goals.
3. Communicate information clearly and effectively using a variety of tools/media in varied contexts for a variety of purposes.
4. Demonstrate innovation, flexibility and adaptability in thinking patterns, work habits, and working/learning conditions.
5. Effectively apply the analysis, synthesis, and evaluative processes that enable productive problem solving.
6. Value and demonstrate personal responsibility, character, cultural understanding, and ethical behavior.
7. Understand, solve and communicate design ideas for Architecture/Engineering problems using sketches, scale drawings, CAD, models and prototypes.

## STATE COMPETENCIES - DRAFTING & DESIGN TECHNOLOGY

### **Units of Study**

#### SAFETY

Personal & General Shop Safety

#### MATH, MEASUREMENT & LAYOUT TOOLS

#### TOOLS & PROCESSES *Hand Tools - Portable Power Tools - Machines*

Drilling and Fastening

Sanding

Cutting & Sawing

Jointing & Planing

Shaping & Routing

#### PROJECT PLANNING

Product Selection

Drawings

Bill of Materials

Plan of Procedure

#### BUSINESS VENTURE - MASS PRODUCTION PROJECT

Product Analysis & Selection

Production Planning

Product Costing

Marketing & Sales

Production

Profit/Loss Statement

### **Grading Practices**

#### **Summative Assessment Policy (for end-of-unit tests, essays, and projects):**

TESTS/PROJECTS/LAB WORK; Followed with review and/or individual critique of work to clarify misunderstandings or discuss areas to improve performance.

#### SAFETY ASSESSMENTS

Students must pass all machine safety assessments with a minimum of 90% to operate the machine without instructor guidance. Test retakes are required until proficiency is obtained.

#### **Late Work and Missing Work Policy:**

Late work is not accepted without prior consent of the instructor, except in the event of an excused absence(s) on the assigned due date.

#### **21st Century Skills (see [Developing 21st Century Skills at PHS](#)):**

Students are assessed and provided feedback on all 21st Century Skills.

**Other:**

The following grading standards are used at PHS

**Formative assignments are weighted as no more than 20% of your overall grade**

- Quizzes
- Homework
- Classwork

**Summative Assessments are weighted at least 80% of your overall grade**

- End of unit tests
- End of unit essays and projects